

WE CLAIM:

SUB C1)

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1. A method for modulating inflammation in a patient, comprising the step of administering a nucleic acid encoding leukemia inhibitory factor (LIF) to a patient in an amount effective to modulate inflammation.

2. The method of Claim 1, wherein said nucleic acid is contained within a viral vector.

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3. The method of Claim 2, wherein said viral vector is an adenovirus.

4. The method of claim 1, where said administering is prior to an insult which otherwise results in inflammation.

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5. The method of claim 1, where said administering is approximately coincident with an insult which otherwise results in inflammation.

6. The method of claim 1 where said administering is to a site of inflammation or potential inflammation.

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7. The method of claim 1 where said administering further modulates swelling.

8. The method of claim 1 where said administering further modulates macrophage infiltration into a site of inflammation or potential inflammation.

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SUB C1)

9. A method for modulating swelling associated with inflammation in a patient comprising the step of administering a nucleic acid encoding leukemia inhibitory factor (LIF) to a patient in an amount effective to modulate swelling associated with inflammation.

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10. The method of Claim 9, wherein said nucleic acid is contained within a viral

vector.

11. The method of Claim 10, wherein said viral vector is an adenovirus.

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12. The method of claim 9 where said administering is prior to an insult otherwise resulting in pain.

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13. The method of claim 9, where said administering is approximately coincident with an insult which otherwise results in inflammation.

14. The method of claim 9 where said administering is to a site of inflammation or potential inflammation.

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15. The method of claim 9 where said administering also modulates inflammation.

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16. A method for modulating infiltration of macrophage associated with inflammation in a patient comprising the step of administering a nucleic acid encoding leukemia inhibitory factor (LIF) to an individual in an amount effective to modulate the infiltration of macrophage.

17. The method of Claim 16, wherein said nucleic acid is contained within a viral vector.

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18. The method of Claim 17, wherein said viral vector is an adenovirus.

19. The method of claim 16 where said administering is prior to an insult resulting in pain.

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20. The method of claim 16, where said administering is approximately coincident with an insult which results in inflammation.

21. The method of claim 16 where said administering is to a site of inflammation or potential inflammation.

5 22. The method of claim 16 where said administering also modulates inflammation.

23. The method of claim 1 or 9 or 16 wherein said modulating is reducing.

10 24. A method of screening for candidate agents which modulate LIF activity, said method comprising administering a candidate agent and LIF to an animal model lacking expression of LIF, wherein a change in LIF activity indicates a modulator of LIF activity, wherein said change is in relation to a control having a different concentration of the candidate agent.

15 25. The method of claim 24 wherein said LIF activity is characterized by at least one of the characteristics in the group consisting of a decrease in mechanical sensitivity, a decrease in thermal sensitivity, a decrease in immune cell infiltrate, an inhibition of neuronal growth factor, an inhibition of interleukin 1 beta.

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